

FIG. 1

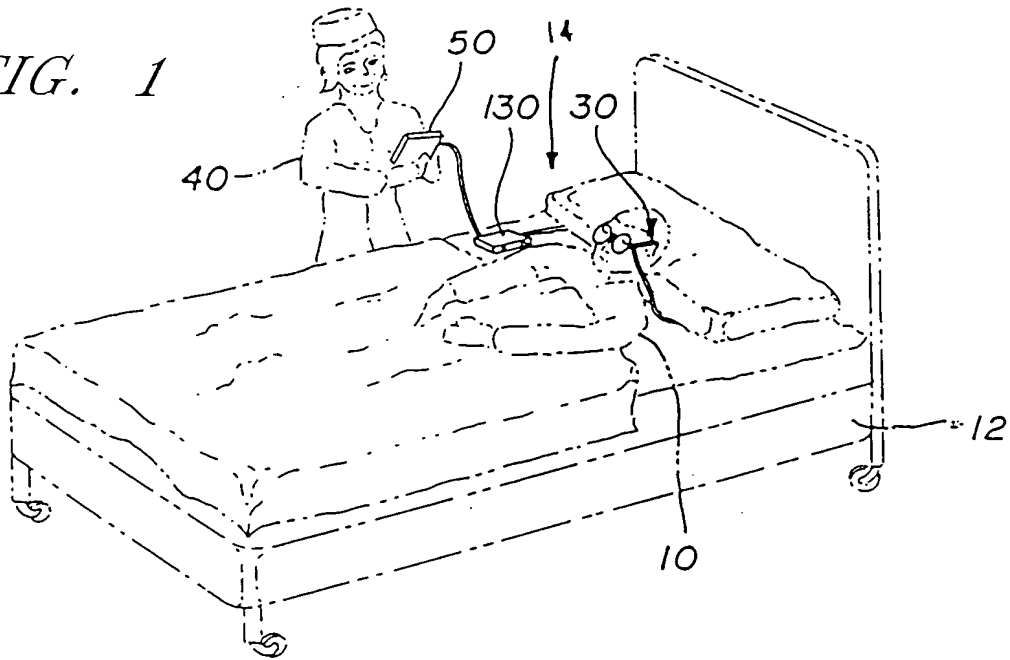
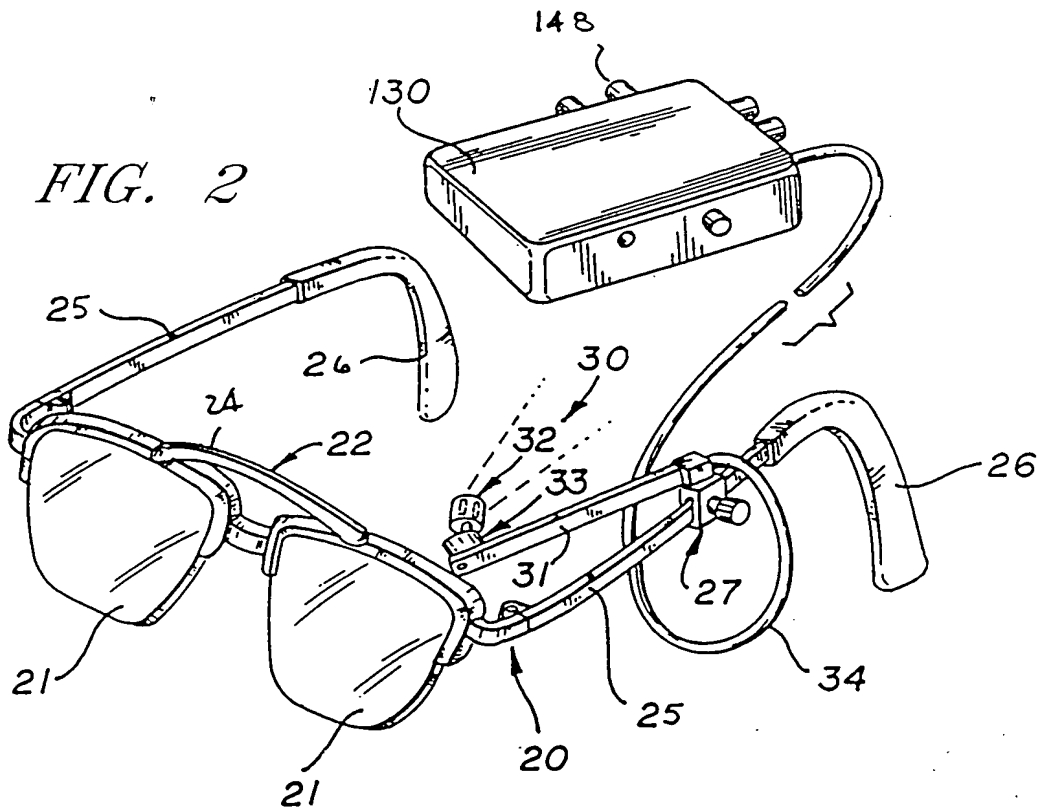


FIG. 2



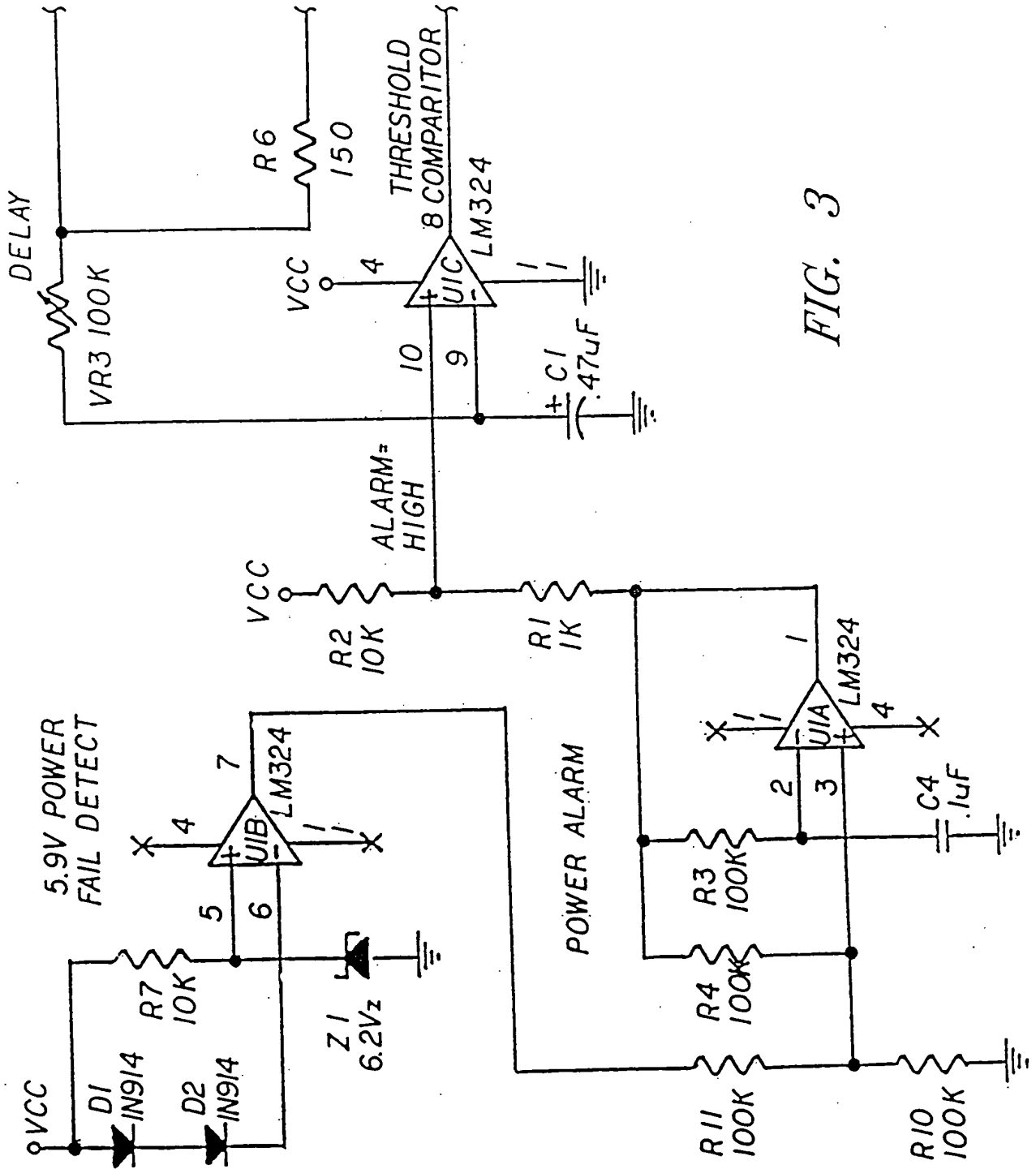


FIG. 3

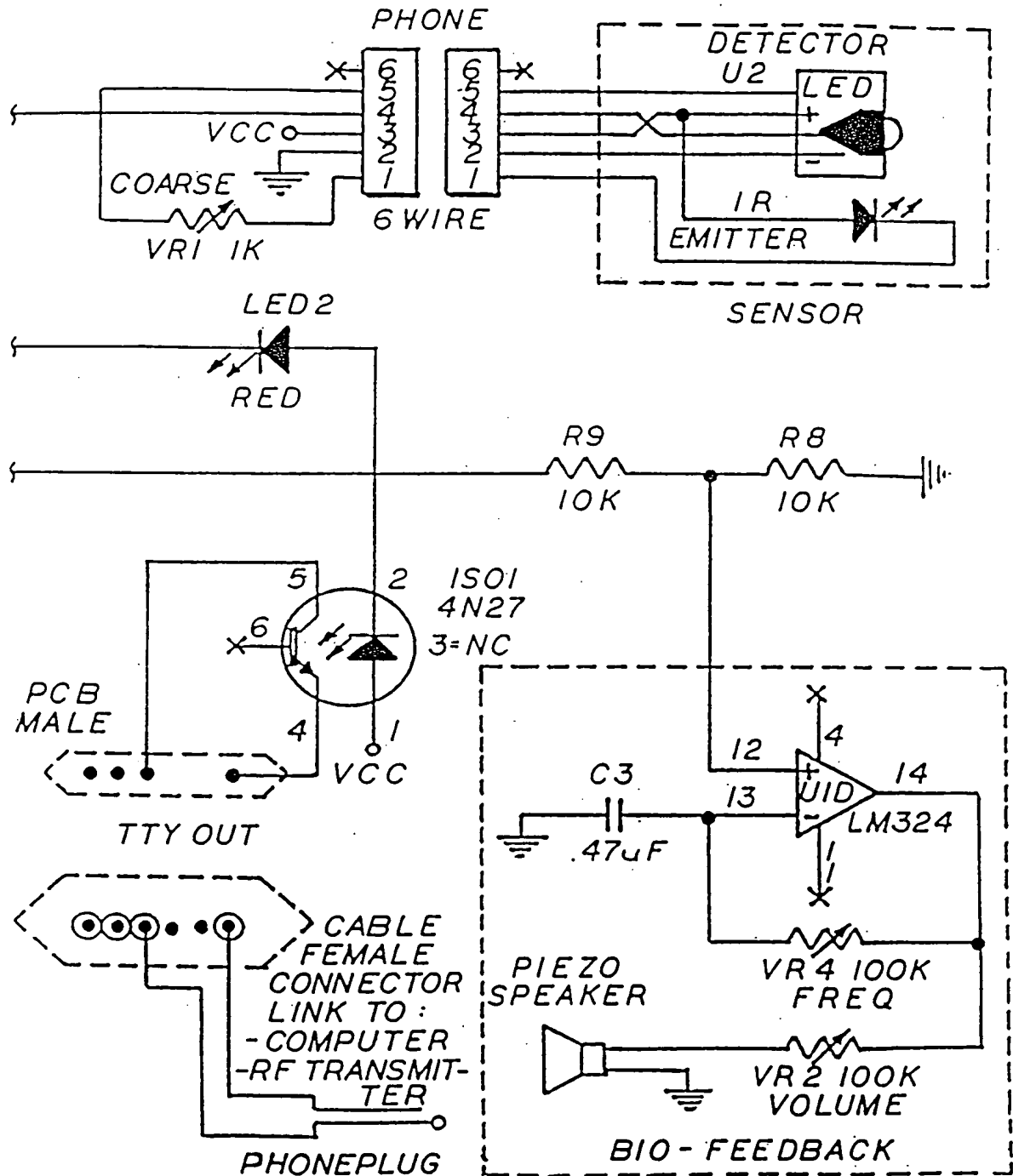


FIG. 3 CONT'D

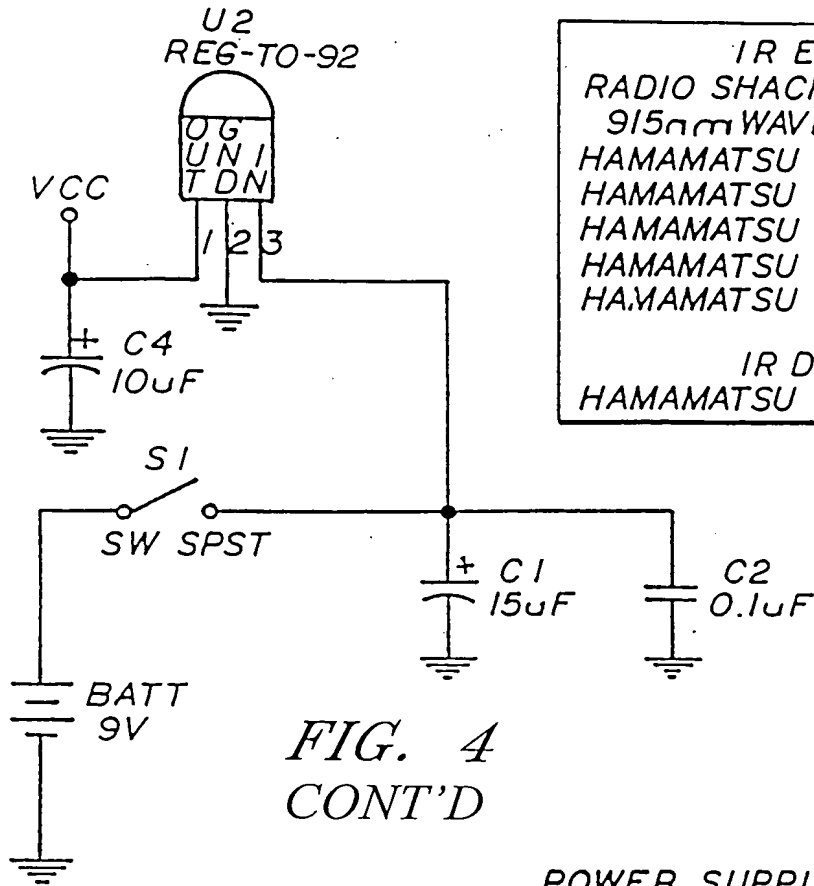


FIG. 4
CONT'D

IR EMITTERS	
RADIO SHACK	#276-142
915nm WAVE LENGTH	
HAMAMATSU	#L1909
HAMAMATSU	#L1915-01
HAMAMATSU	#L2791-02
HAMAMATSU	#L2792-02
HAMAMATSU	#L2959
IR DETECTOR	
HAMAMATSU	#54282-11

FIG. 3
CONT'D

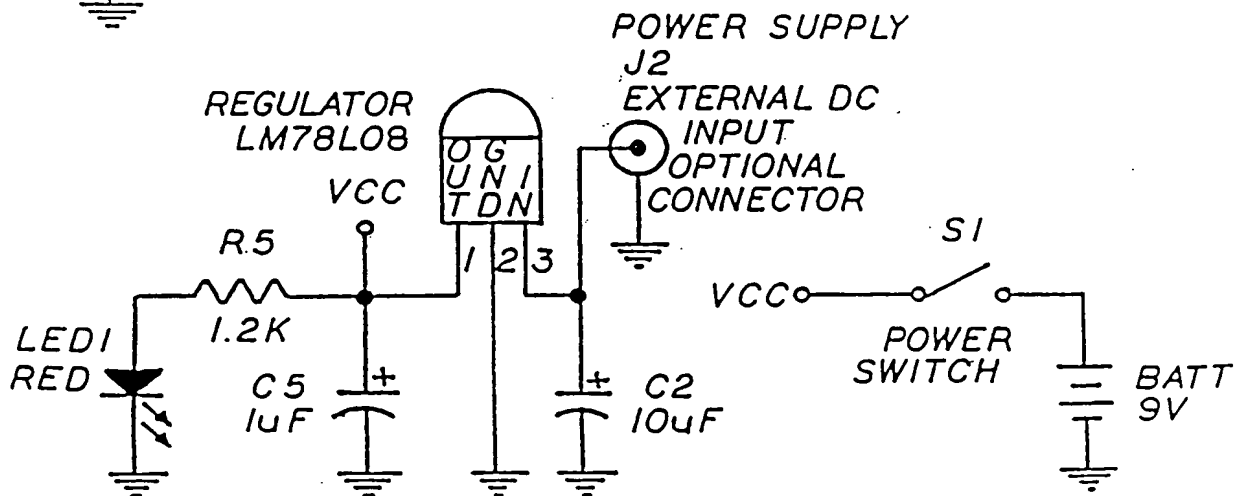


FIG. 3
CONT'D

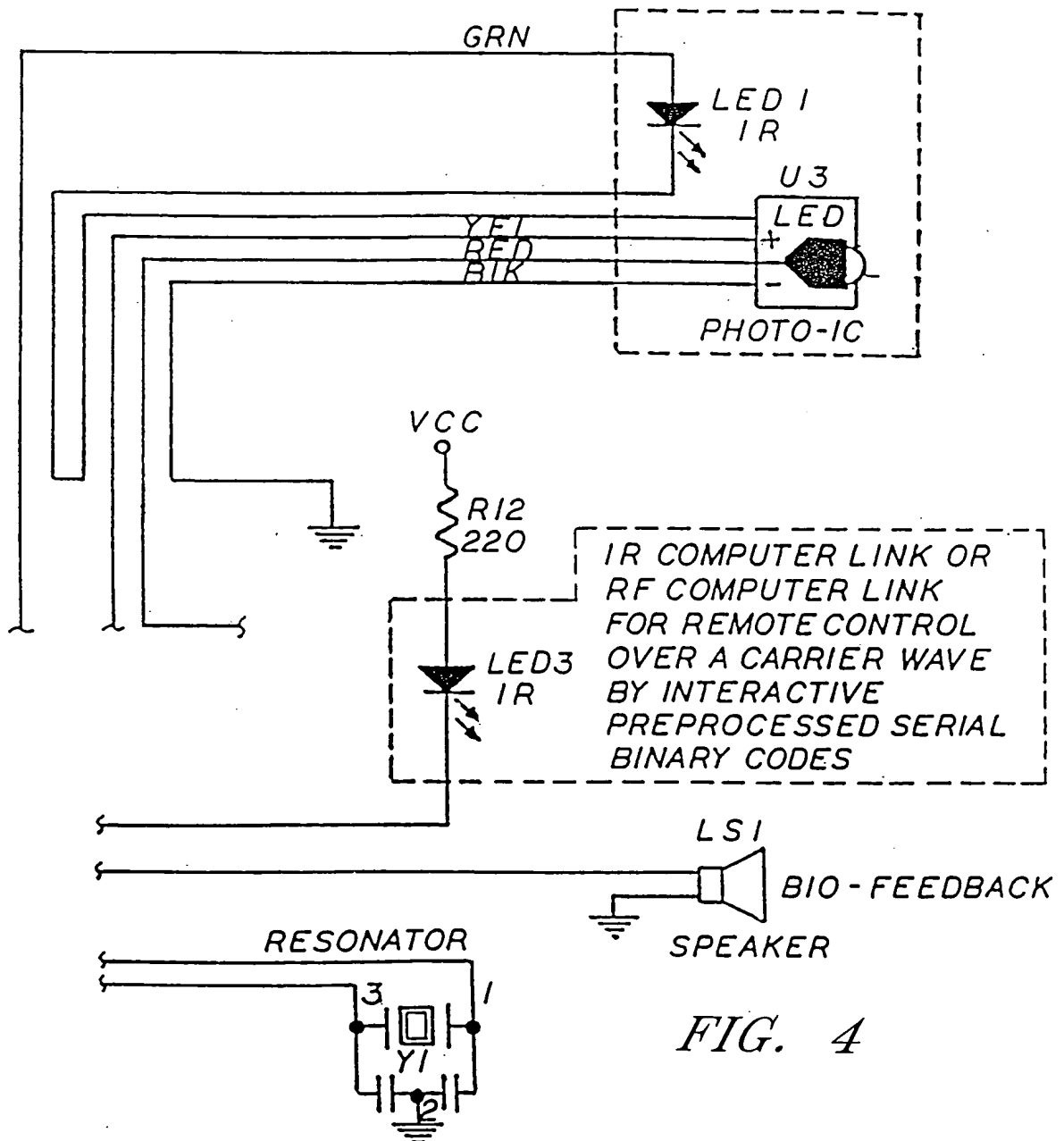
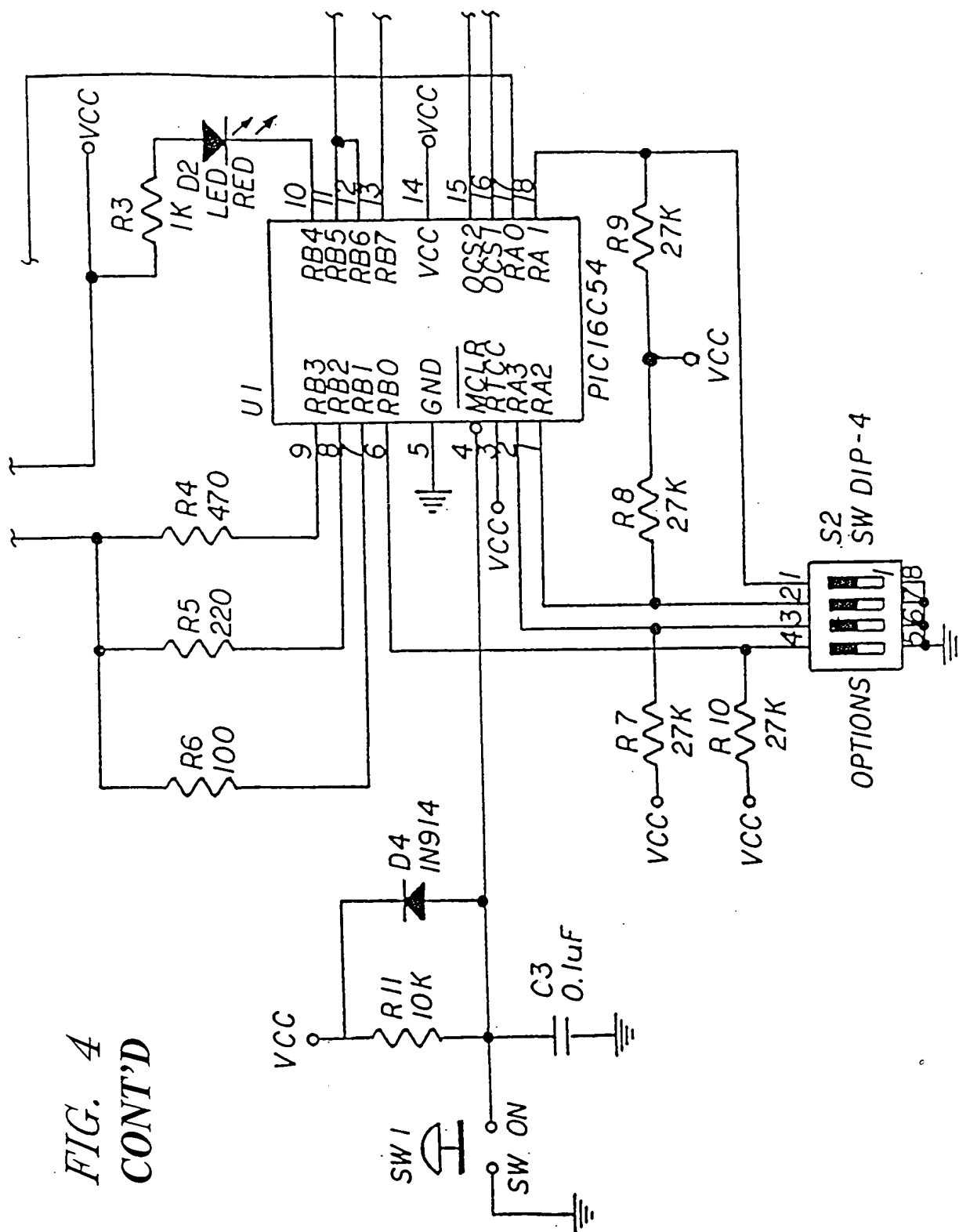


FIG. 4

FIG. 4
CONT'D



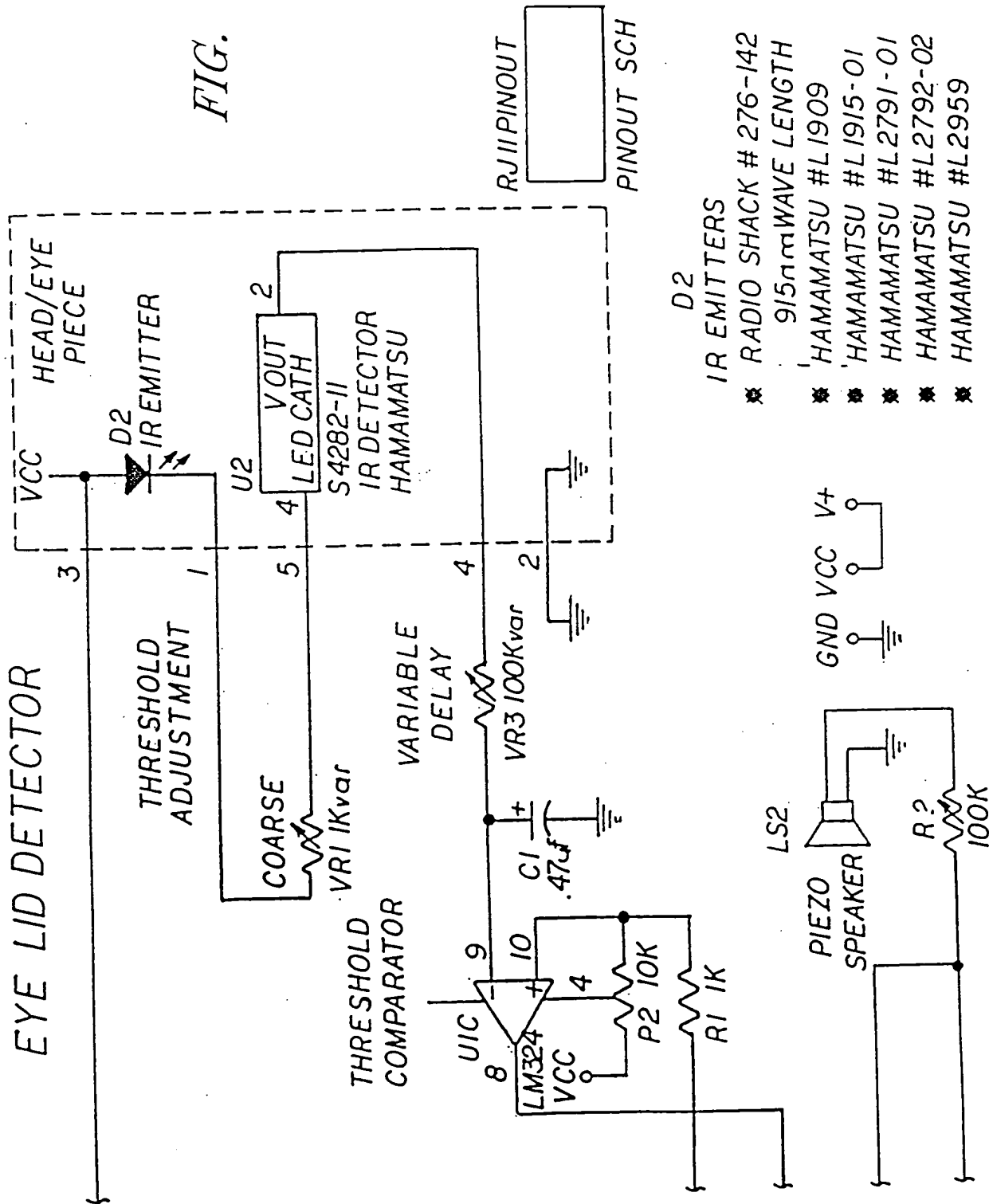
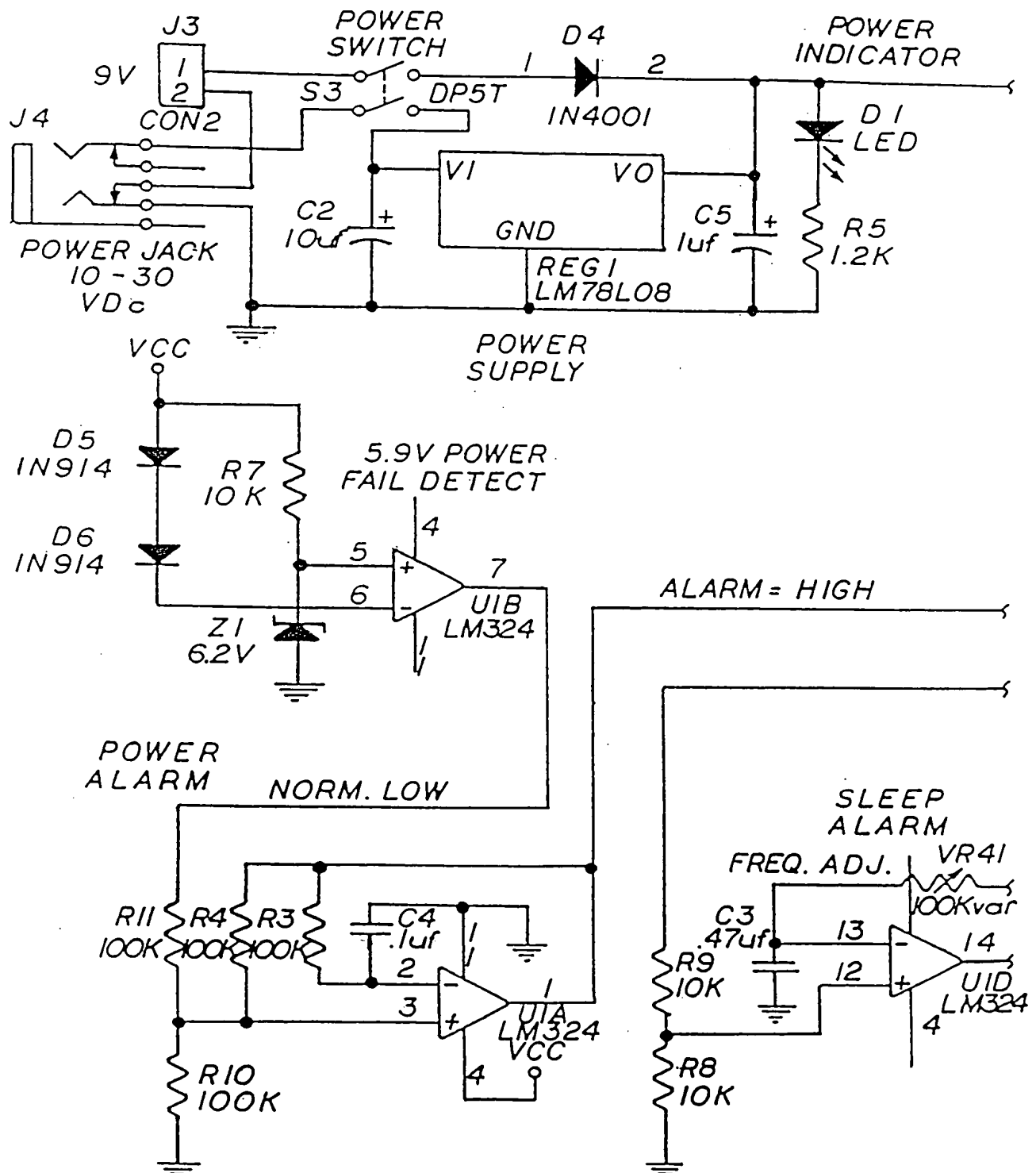


FIG. 5
CONT'D



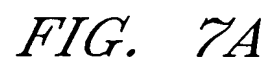
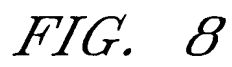


FIG. 6A

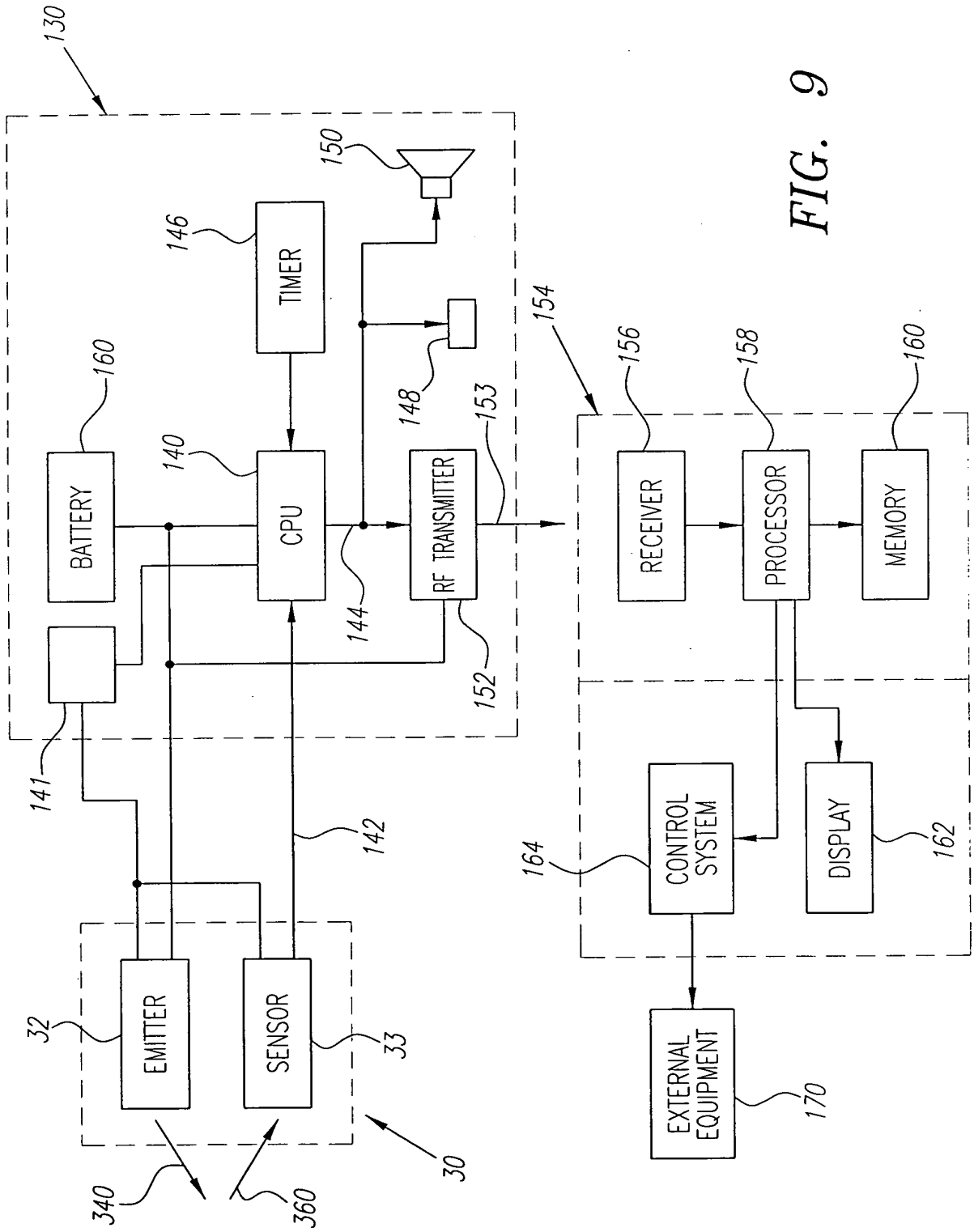


FIG. 9

FIG. 10A

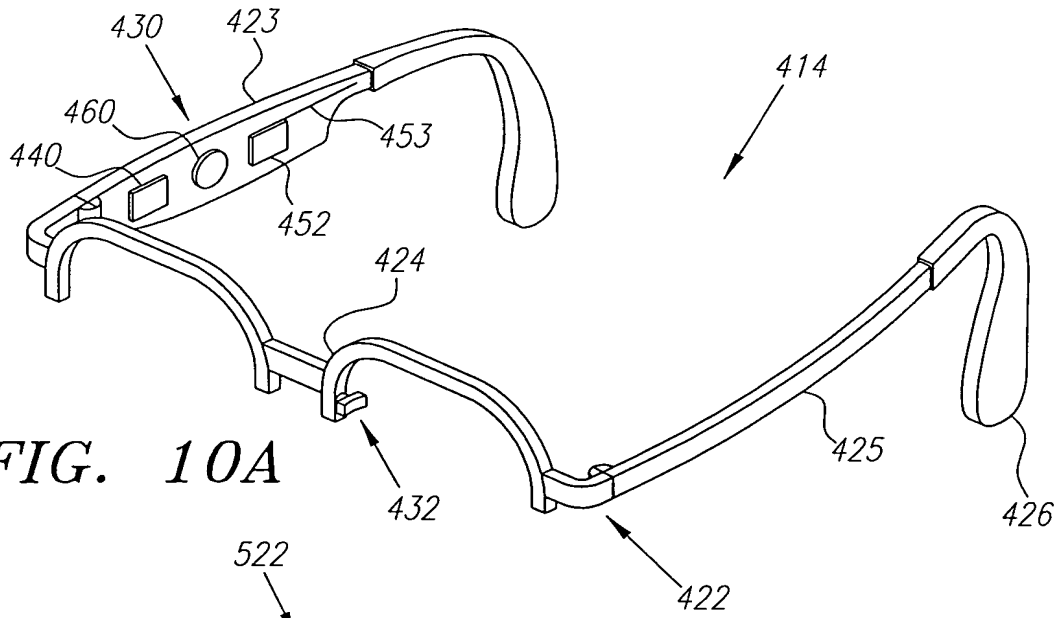


FIG. 10B

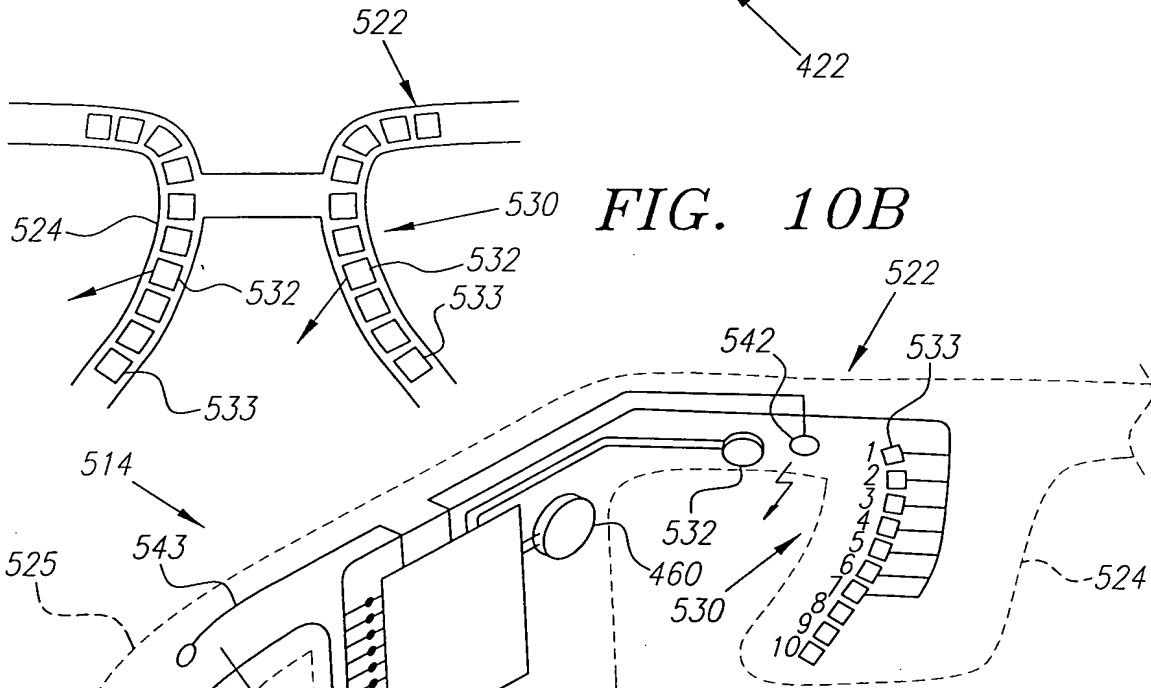
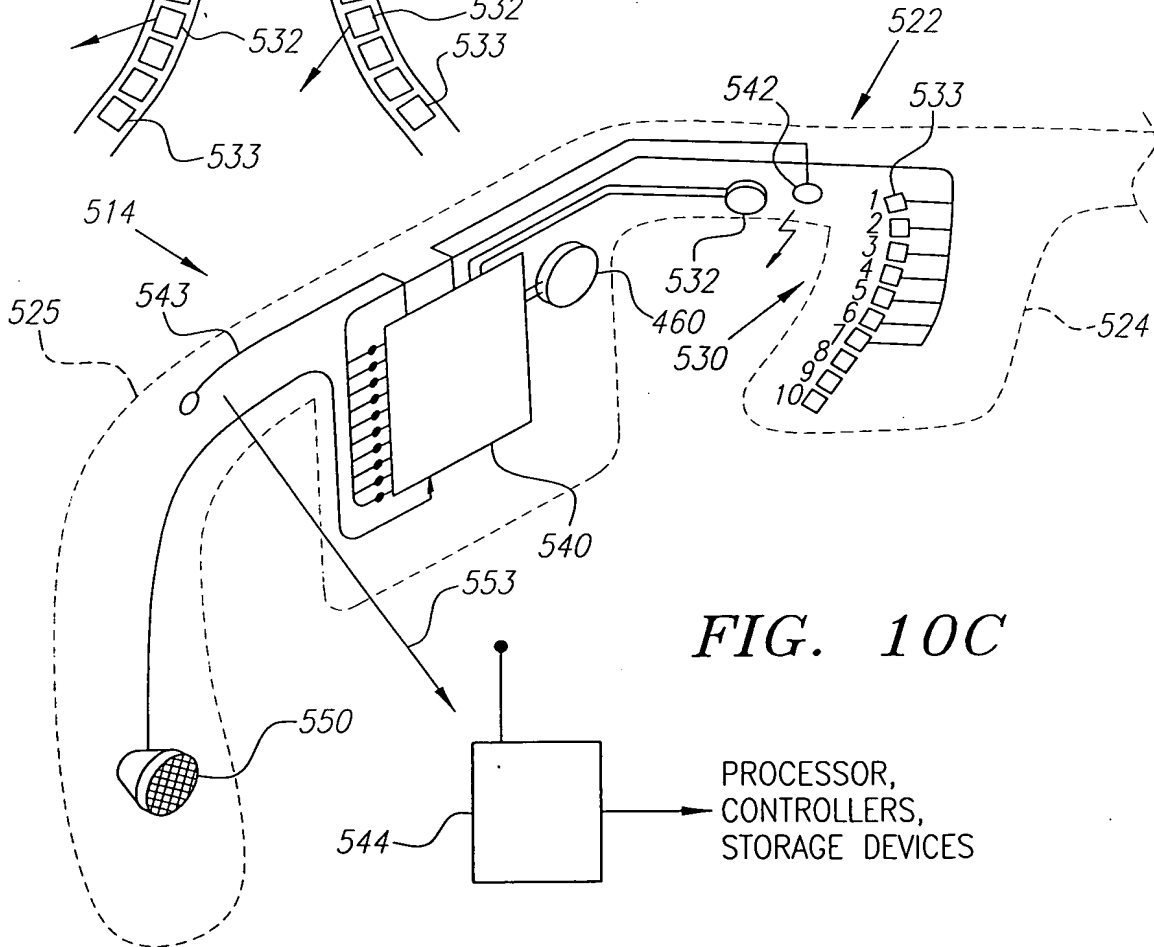
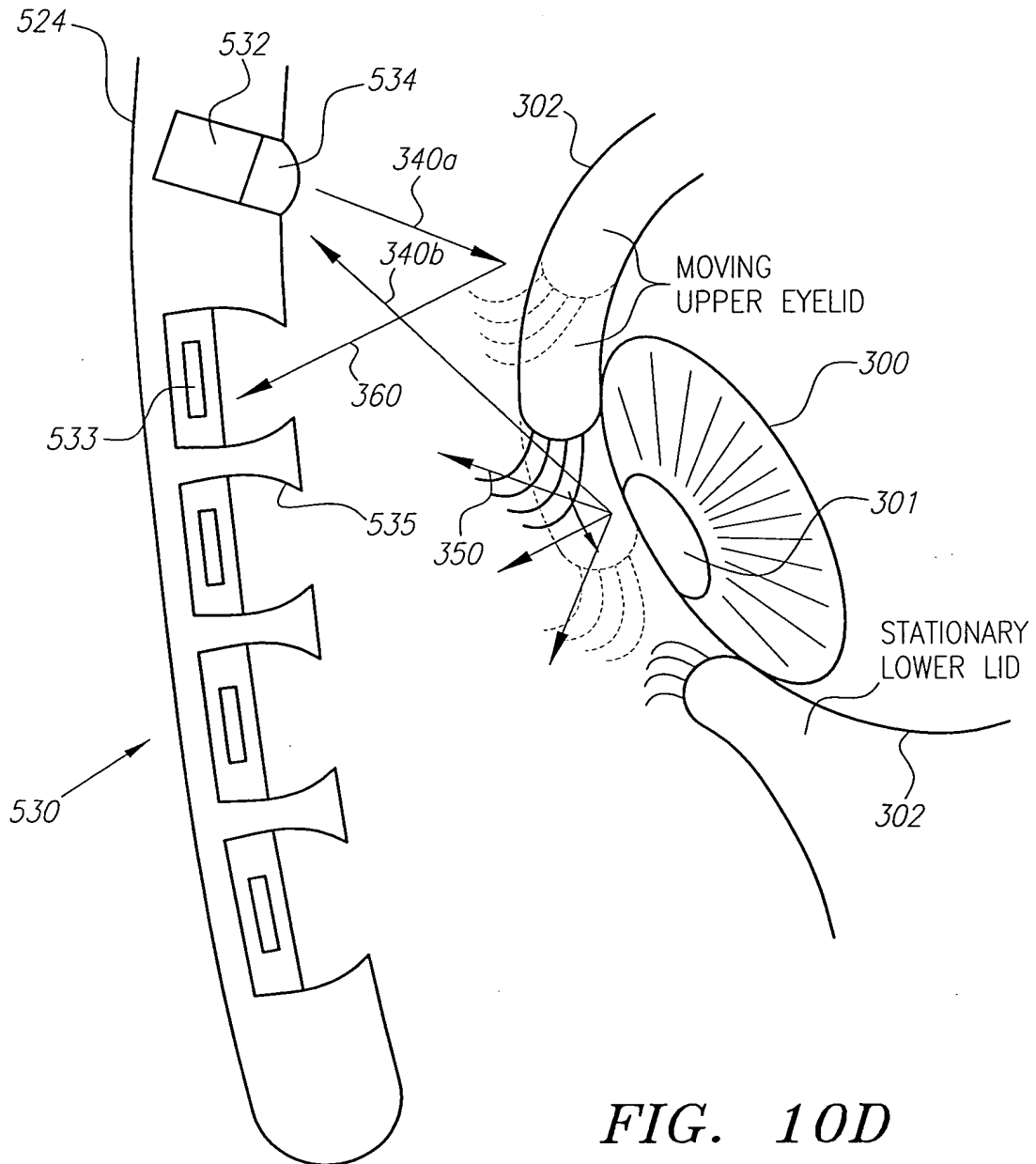


FIG. 10C



PROCESSOR,
CONTROLLERS,
STORAGE DEVICES



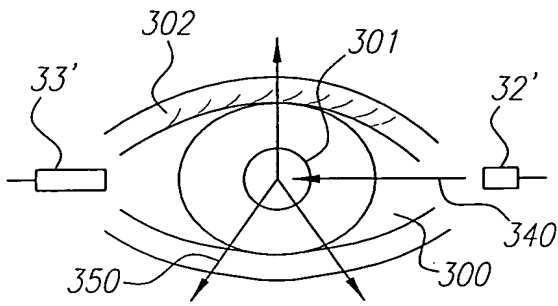


FIG. 6B

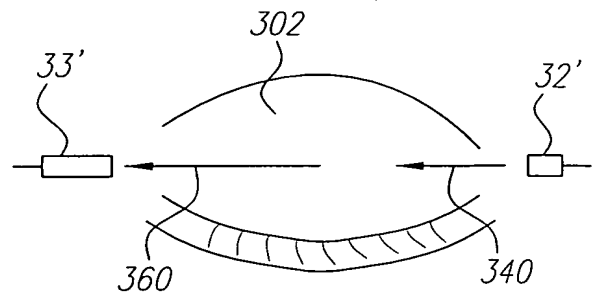


FIG. 7B

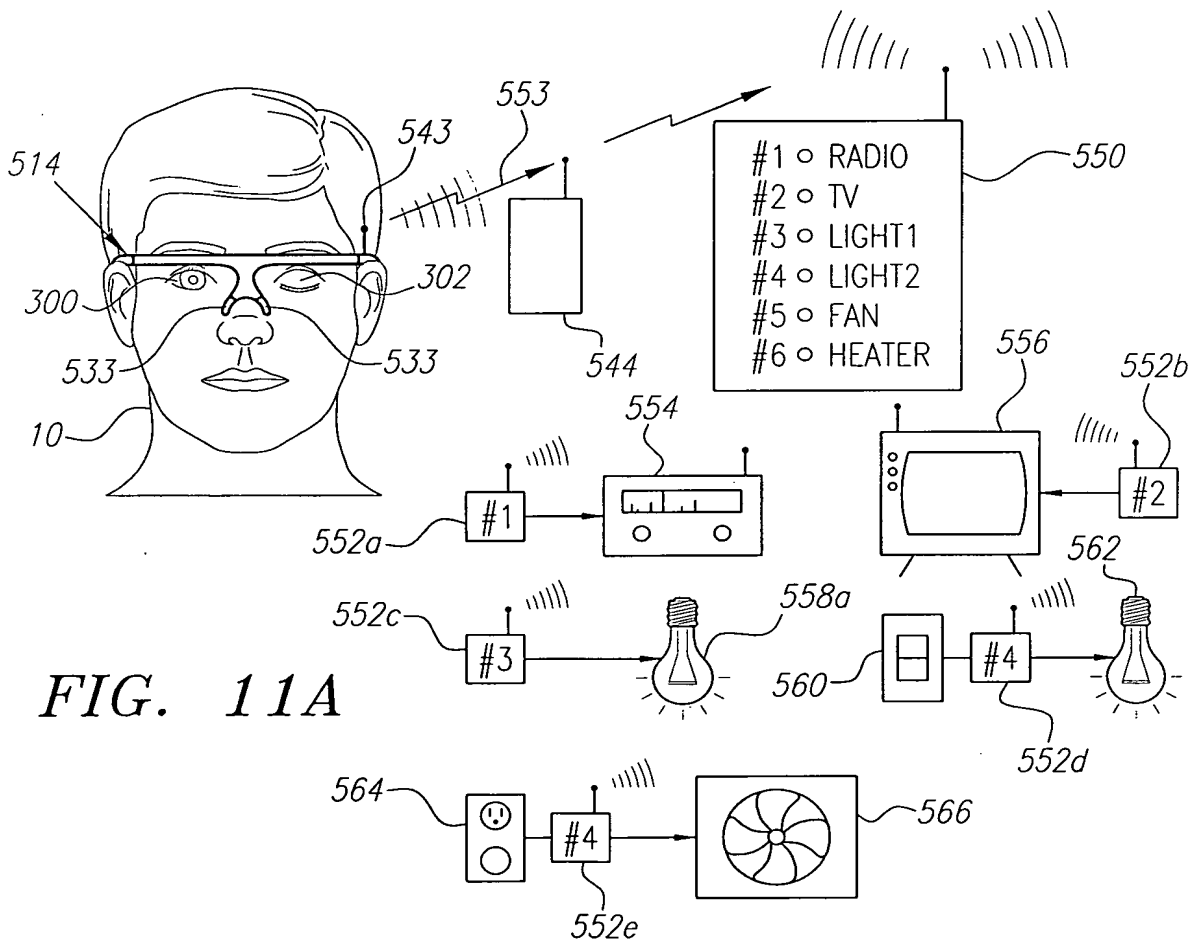


FIG. 11A

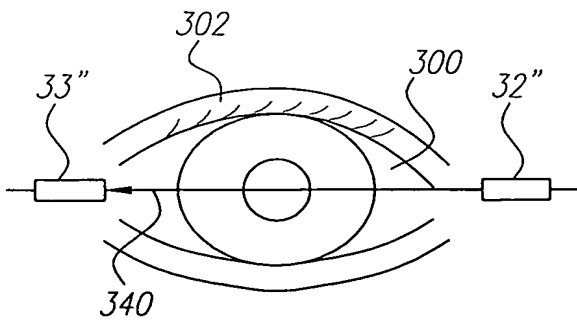


FIG. 6C

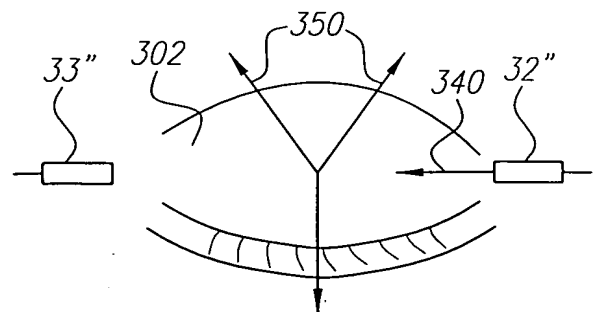


FIG. 7C

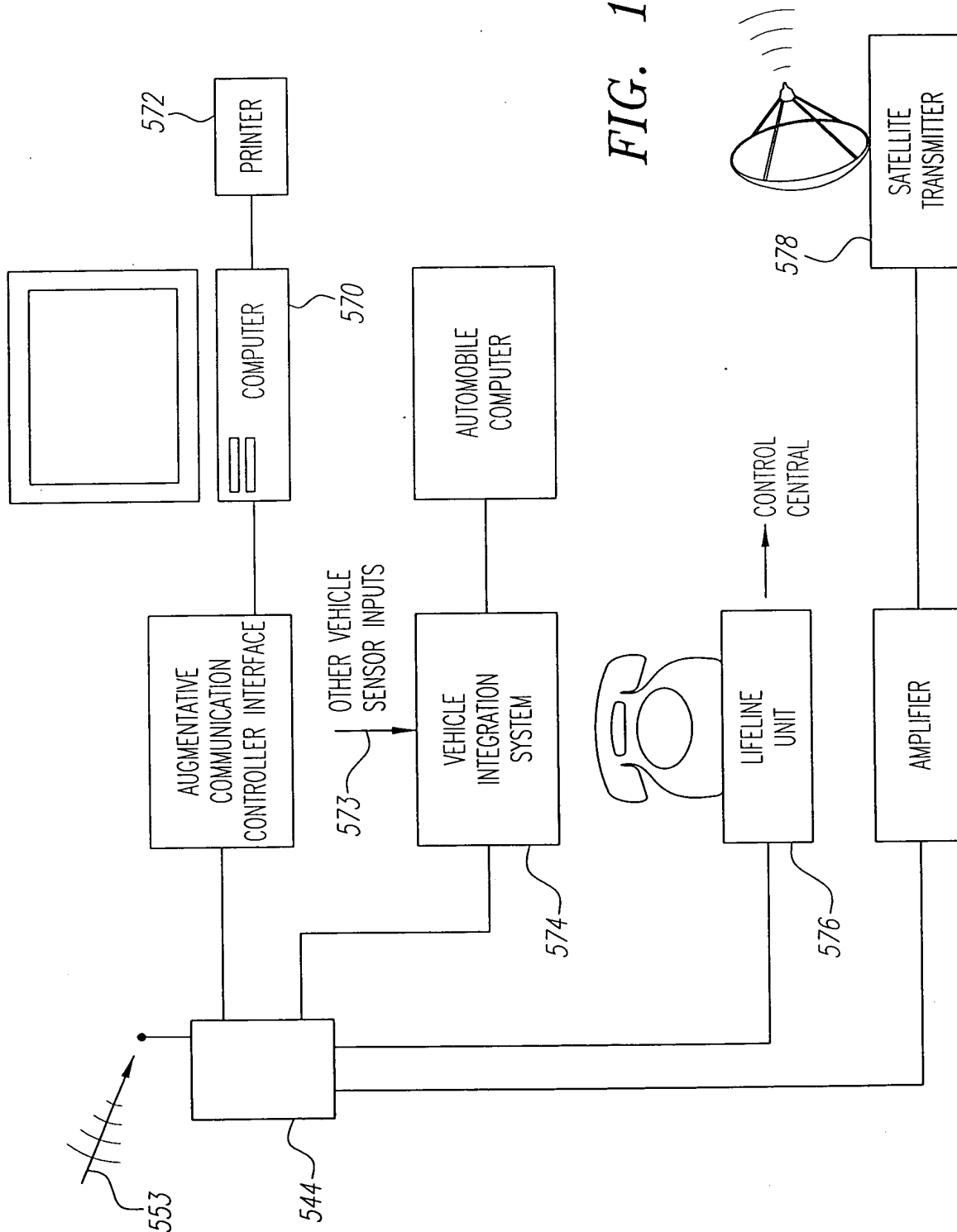


FIG. 11B

SENSOR NO.

25

50

75

100

SENSOR NO.

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

SENSOR NO.

EYE FULLY OPEN

EYE LID 25% CLOSURE

EYE LID 50% CLOSURE

EYE LID 75% CLOSURE

EYE LID 100% CLOSURE

NUMBER OF
SENSORS ACTIVATED

1 SENSOR DETECTOR

2 SENSOR DETECTORS

3 SENSOR DETECTORS

4 SENSOR DETECTORS

5 SENSOR DETECTORS

ASSOCIATED SQUARE
WAVE SIGNAL GENERATED

1 2 3 4 5

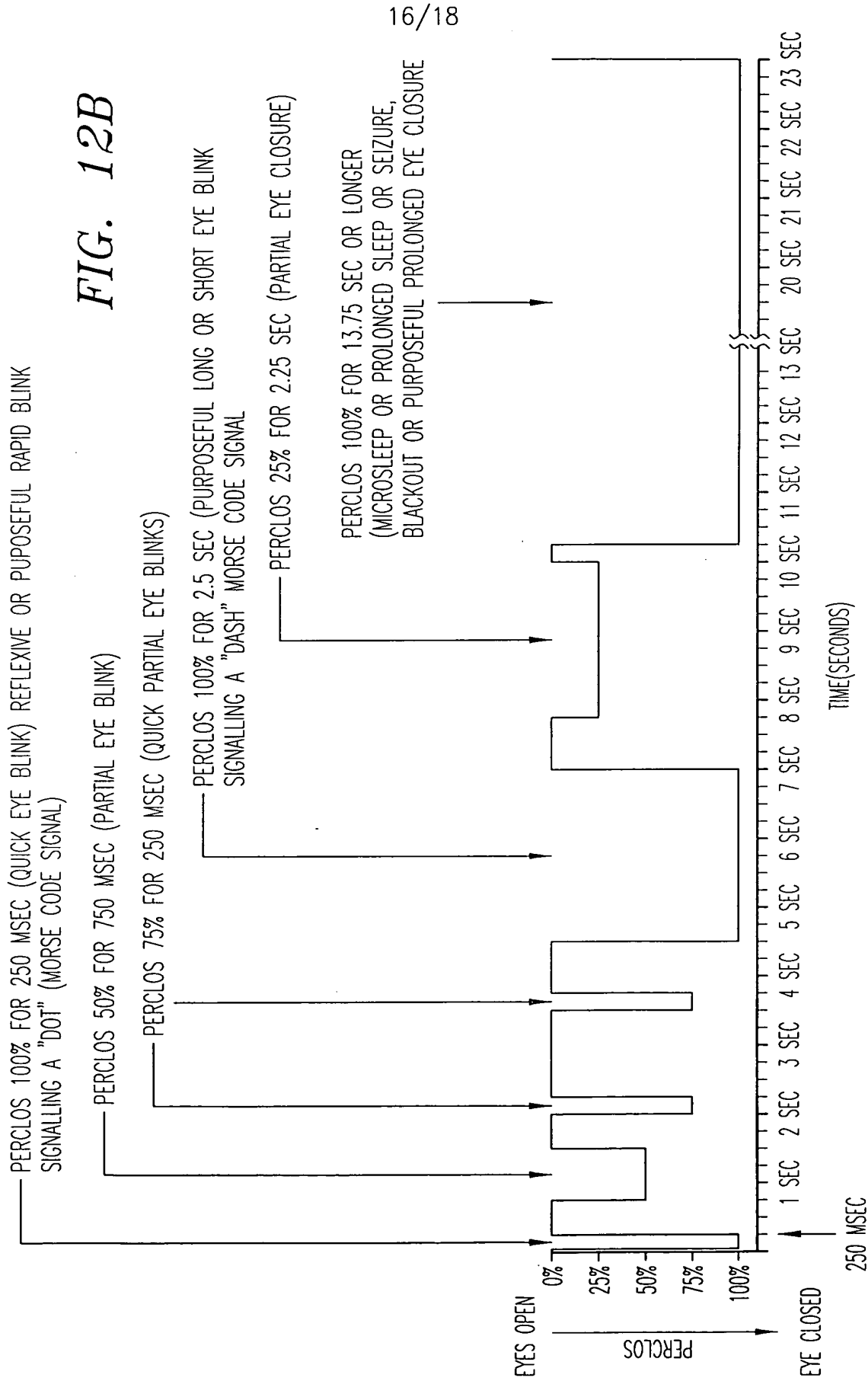
1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

FIG. 12A



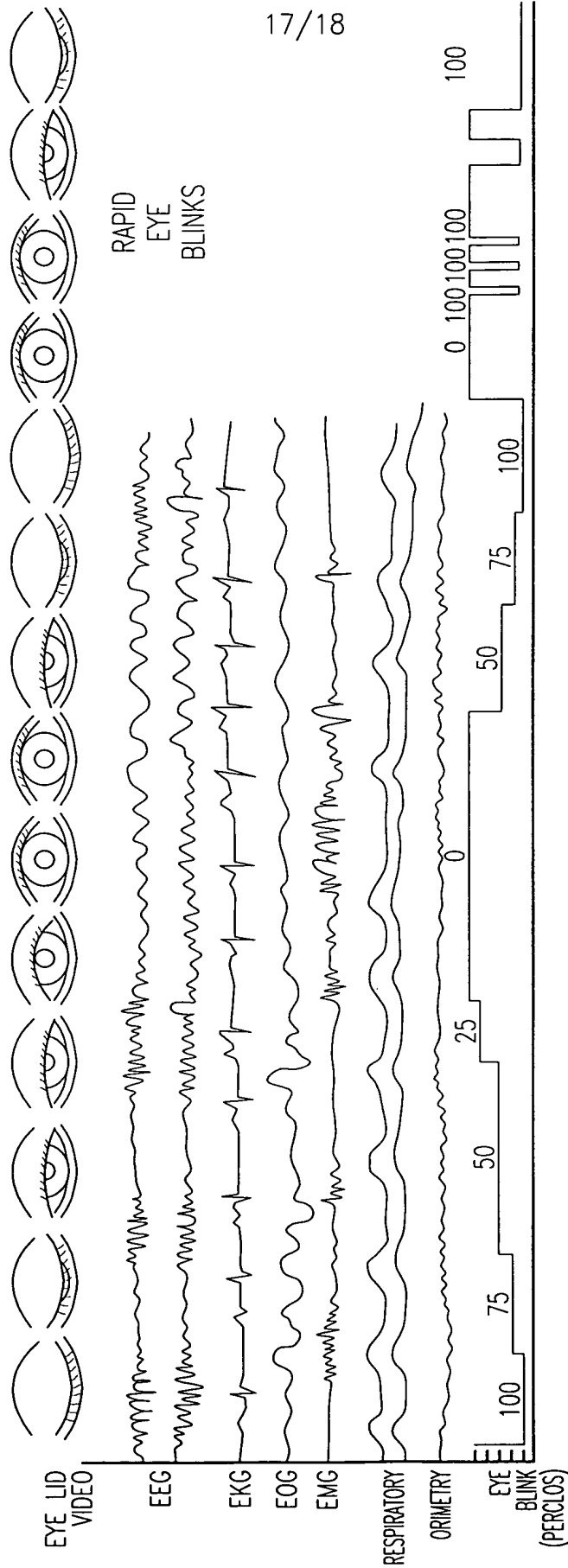


FIG. 12C

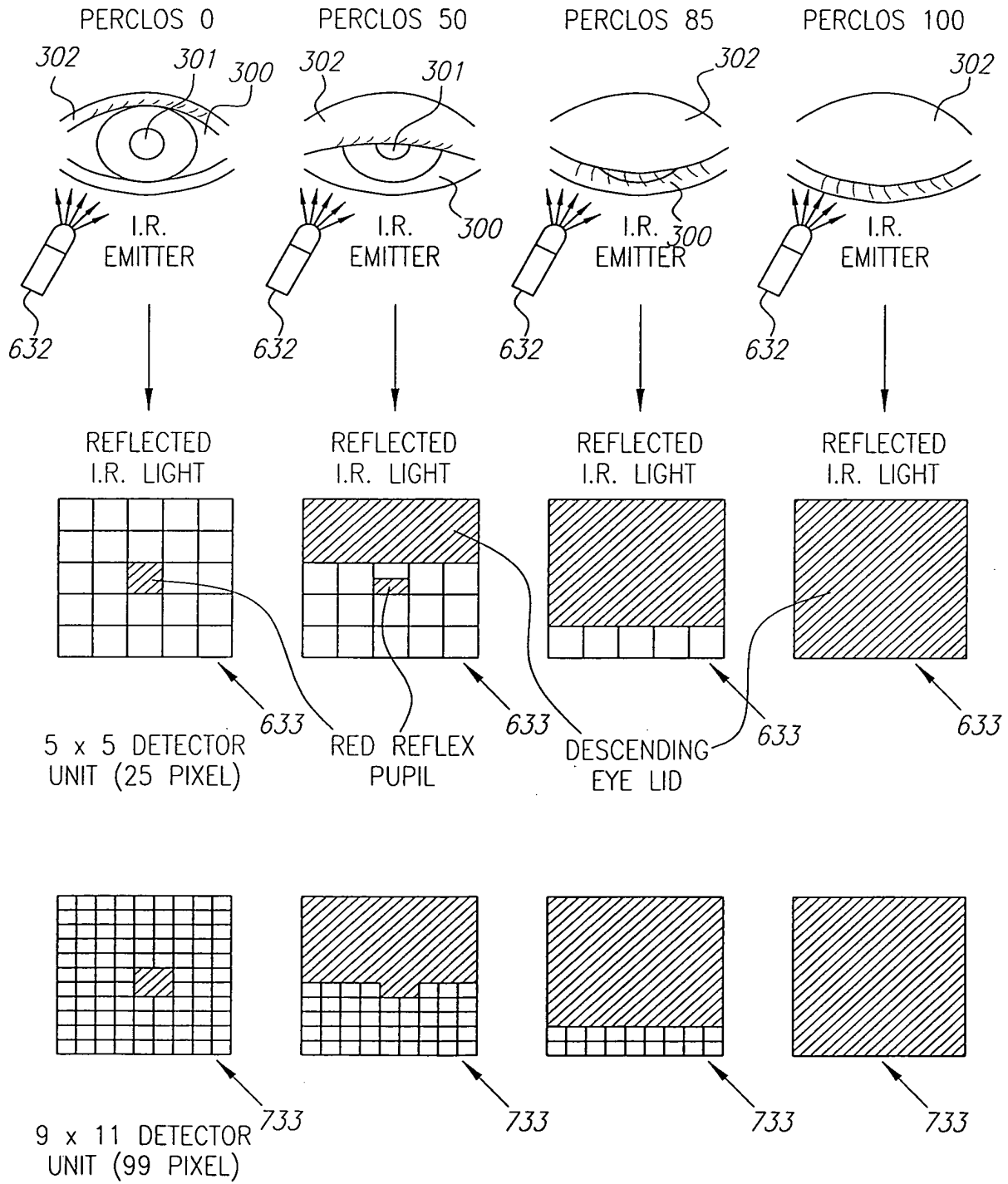


FIG. 12DI

FIG. 12DII

FIG. 12DIII

FIG. 12DIV

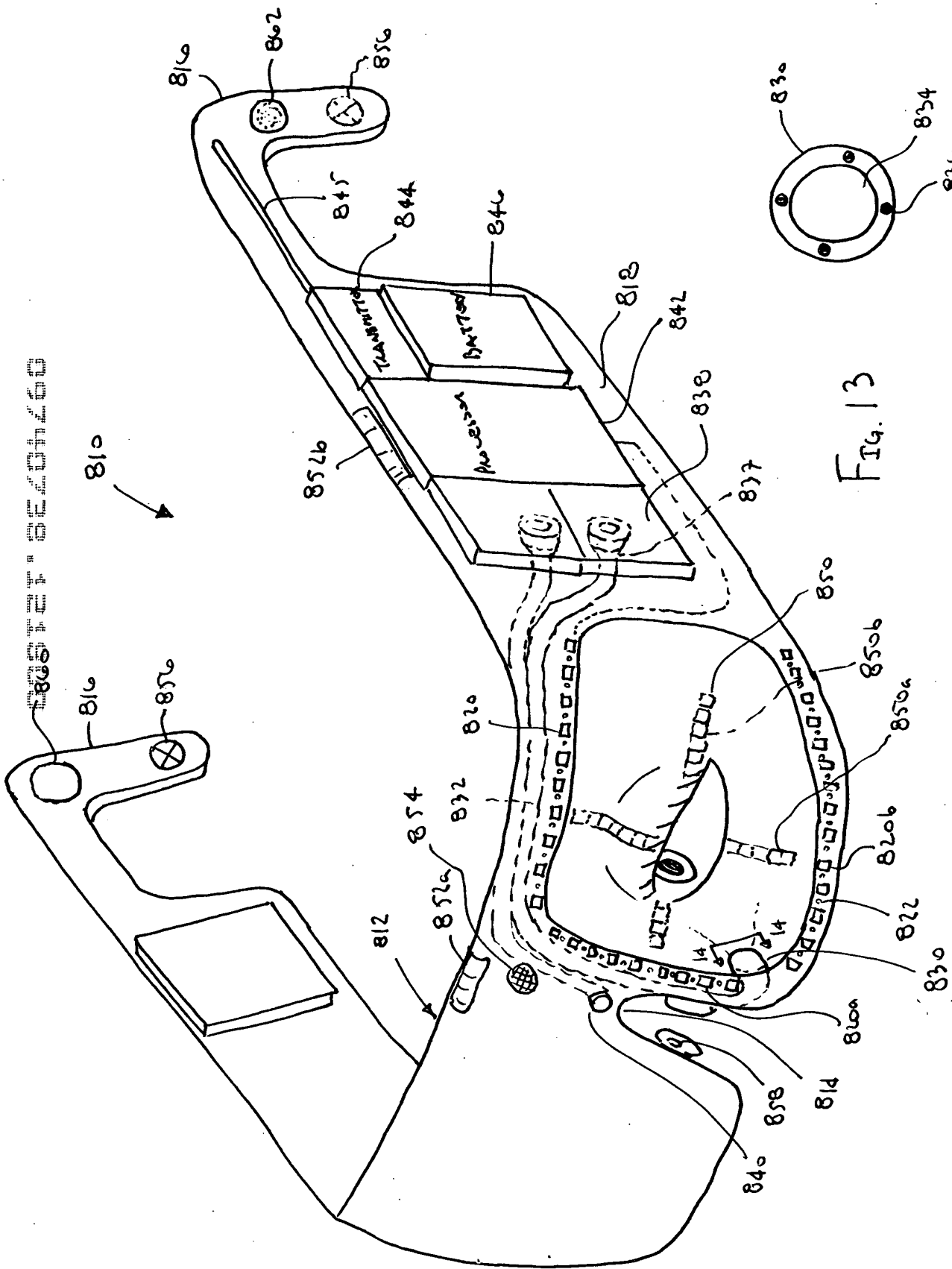


FIG. 13

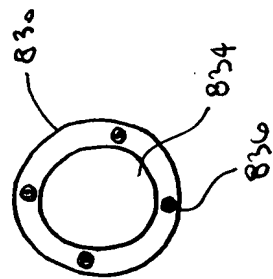
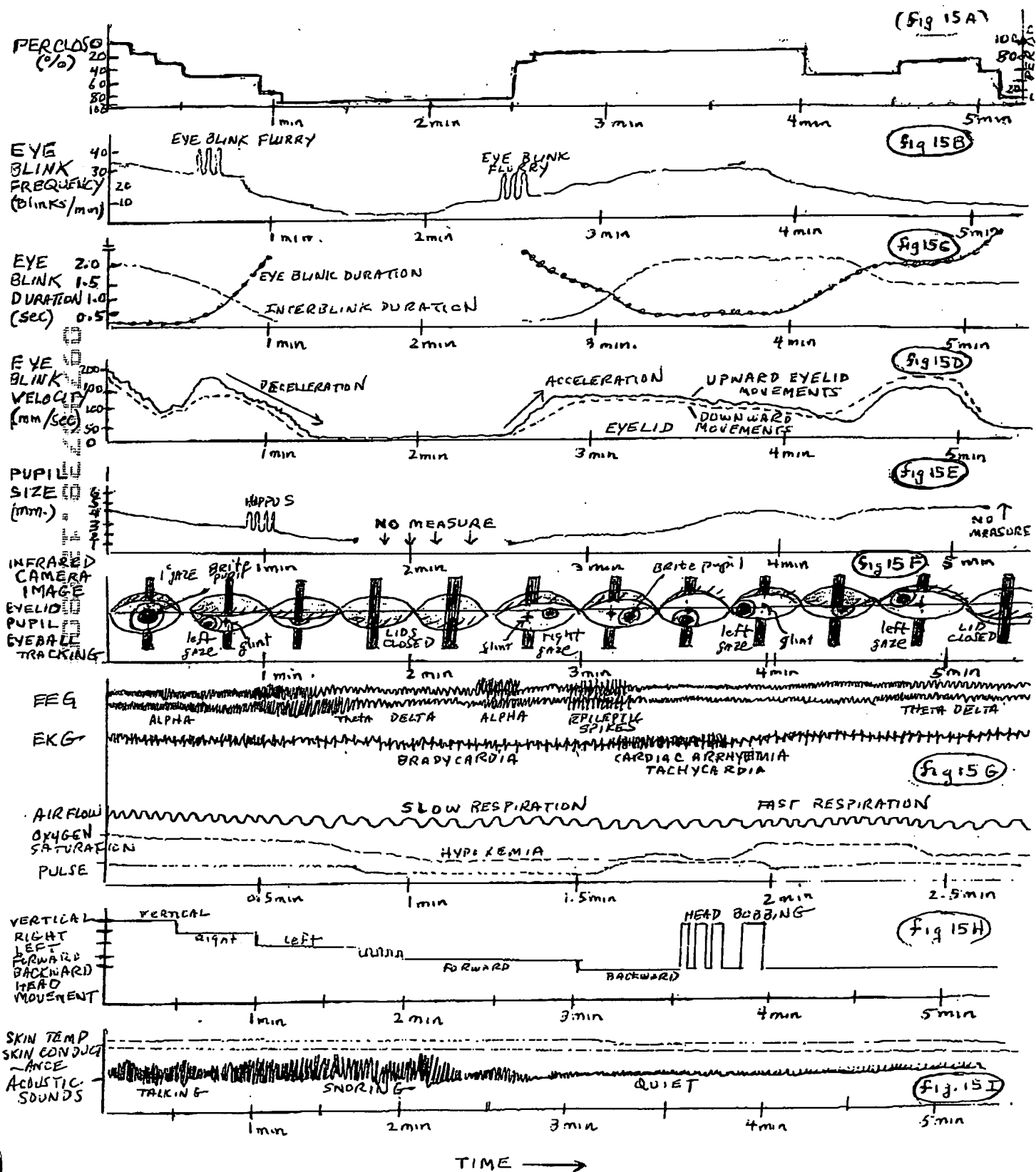


FIG. 14



00740330 14000

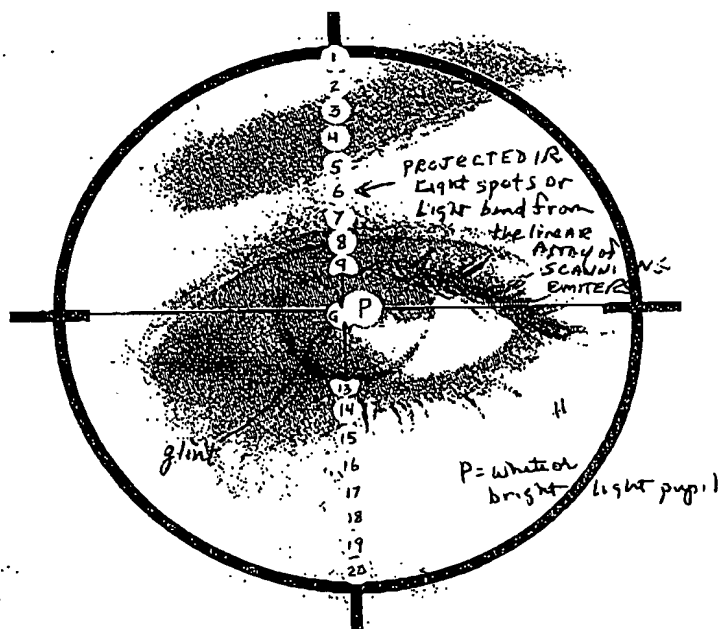


FIGURE 12

